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Recent Developments in the
Soviet Capital Investment Program

by

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VI. CAPITAL INVESTMENT

GENERAL BACKGROUND

1. Between 1950 and 1969 Soviet gross fixed investment grew nearly twice as fast as total GNP. The significant increase in the allocation of resources to investment during this period reflected the determined pursuit of economic growth on the part of the Soviet leadership. This investment policy achieved its primary objective of creating a vast industrial complex in the Soviet Union, but at a high cost.^{1/}

2. The functional structure of Soviet investment continues to be heavily weighted in favor of construction activity (at present about 60% of total investment), although the share of the equipment component has been rising gradually since 1950. Soviet construction requirements appear to be almost limitless given the vast undeveloped areas east of the Urals, the many conservation and reclamation projects in some of the more densely populated regions, and the inadequacy of the present housing stock.^{2/} Furthermore, the requirements for new technologies in many types of industrial production call for construction of new plant from the ground up rather than simply the redesigning of existing plant.^{3/} As a result there has been no significant change in the functional structure of Soviet investment over the last five years.

^{1/} Some of the growth in investment was simply the result of inefficient use of capital. Since 1960 the capital cost associated with achieving economic growth has risen markedly (for a comparison of marginal capital-output ratios in the 1950's and the 1960's see Table 6 in Chapter , The Economic Burden of the Soviet Defense Outlays).

^{2/} Soviet housing per capita amounts to about 80% of the minimum sanitary requirement established by law. At the end of 1968 per capita housing (useful space) in the U.S.S.R. was only about 35% of that in the United States and large numbers of Soviet families were still continuing to share apartments.

^{3/} Despite official encouragement of expansion and renovation of existing plants as a capital-saving technique the percentage of total investment channeled into such activity has failed to increase in recent years, and has even declined quite markedly in some industries.

3. The sectoral structure of Soviet investment, however, has shown some tendency to vary in recent years. Heavy industry has lost some ground, although it continues to maintain a wide margin as the leading claimant on investment (almost 30% of the total). Until 1964 housing came next, but since then agriculture and services have been vying for second and third place. The shifting priorities of the sectors has tended to reflect not only the preferences of the planners but also the intrusion on these preferences of various domestic and foreign developments. Crop failures in 1953 jolted the leadership into doubling the annual growth rate of agricultural investment (from 10% in 1953 to nearly 20% in 1964), while relative neglect of the public services sector in 1962-64 necessitated an all-out drive in 1965-67 to remedy the situation (the growth of investment jumped from an average annual rate of 5% to one of 12 $\frac{1}{2}$ %). Technological advances in the industrial West and the arms-space race with the United States also caused the Soviet leadership to alter the structure of investment among and within the branches of industry in the late 1950's and early 1960's. Thus investment in chemicals and petrochemicals increased at rates of 50% or more in 1958 and 1959, while investment in machine building increased nearly 20% annually in both 1959 and 1960.

4. When originally unveiled in 1966 the current (eighth) five-year plan -- 1966-70 -- was vague in its statement of investment goals. In October 1967, the overall volume of planned investment -- set at about

310 billion rubles the year before -- was reduced to 303.2 billion rubles.

The cutback in the original plan was mainly, if not entirely, in agricultural investment. Based on the cumulative volume of investment during 1966-69 (about 234 billion rubles) the revised goal of 303 billion rubles for the entire 5-year period will probably be reached.^{1/} It is doubtful, however, that the pattern of investment will conform to the plan or that the planners will get the desired return on investment funds in terms of new productive capacity, housing space, or public service facilities. It has already been officially acknowledged that investment in agriculture will fall short of the planned goal.^{2/} There are clear indications that the investment costs of some types of industrial plant were seriously underestimated, that many new plants are or will be obsolete by the time they come on stream, and that in a number of cases investment funds were squandered on submarginal projects.

PERFORMANCE IN 1968 AND 1969

5. Total investment in the Soviet economy grew at an average annual rate of about 6% during 1968-69, somewhat below the 8% average registered in 1966-67. The growth of investment in 1968 exceeded the plan, whereas in 1969 it fell considerably short. Both years were marked by difficulties for the central government in maintaining control over the investment program. Also, the period was one of declining growth of efficiency in

^{1/} Because of the shift to new investment prices of 1 January 1969, the results of the investment plan expressed in prices of 1 July 1955 may never be announced. However, using a rough conversion ratio, it can be calculated that cumulative investment during 1966-69 represented about 77% of the revised 5-year goal and that the investment planned for 1970 just makes up the balance.

^{2/} Assuming fulfillment of the 1970 goal for agricultural investment, it is estimated that cumulative agricultural investment in 1966-70 will amount to about 80% of the original program and about 90% of the revised program.

capital construction: labor productivity grew at a retarded rate and the volume of unfinished construction increased significantly (with the result that the economy was deprived of some 5 billion rubles of new fixed capital).^{1/}

U.S.S.R.: Indicators of utilization of investment, 1961-69
Average annual rates of growth, in percent

	<u>1961-65</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Growth of:					
Gross fixed investment	6.3	7.4	8.3	8.1	4
Volume of unfinished construction ^{1/}	6.7	9.8	10.0	14.9	<u>2/</u>
Gross additions of new fixed capital ^{3/}	6.5	7.1	8.8	3.3	<u>2/</u>
Labor productivity in construction	5.2	4.7	6.7	4.2	3

^{1/} Including equipment installed in unfinished plants.

^{2/} Not available.

^{3/} Gross additions of fixed capital differs from gross fixed investment in that it includes investments only in projects that were completed and accepted for use during the year.

6. In 1968, so-called "centralized" investment increased only 5% while "noncentralized" investment (influenced by the central planners but also reflecting local preferences) increased by almost 17% as against a plan of about 6%. Soviet officials took a number of steps in 1969 to check the further runaway growth of noncentralized investment, although at the cost of some slowdown in the overall growth of investment. One of the steps adopted was to severely limit the number

^{1/} This figure is based on the increase in unfinished construction in 1968 alone. The total for the two-year period, 1968-69, cannot be computed until a 1969 figure is disclosed for unfinished construction.

of major new construction projects authorized under the 1969 plan ^{1/} with the aim of concentrating investment resources on completion of those projects deemed most critical to the growth of the economy. The growth of noncentralized investment was temporarily checked in 1969 and a 9-percent increase was achieved in the commissioning of new fixed capital from centralized investment, including sizeable increases of capacity for the production of electric power, crude steel, and mineral fertilizers. Nevertheless, the Soviet leaders expressed dissatisfaction with the overall performance.

USSR: Growth of Centralized and Noncentralized Investment, 1961-69
[in percent]

	<u>1961-65</u> ¹	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Total investment	6.3	7.4	8.3	8.1	4.0
Centralized	7.5	5.4	5.1	4.9	5.7 ^{2/}
Noncentralized	3.0	13.7	18.0	16.6	Neg. ^{2/}

¹ Average annual rate (1960 base).

² Estimated.

7. The growth of construction activity averaged nearly 6% annually during 1968-69, a drop of about $1\frac{1}{2}$ percentage points from the average in 1966-67 (see Table 1). Only a modest gain was achieved in increasing the proportion of contract work, an important indicator of progress toward the adoption of more efficient methods of construction. ^{2/} Despite

^{1/} According to Gosplan Chairman Baybakov the final list of some 300 new projects submitted for government approval represented only about half the number originally included in the plan.

^{2/} Contract construction work is usually performed by professional construction organizations, either specialized or general. The work of these organizations is generally more efficient than noncontract construction work because the bulk of the construction equipment and trade skills are concentrated in their hands. It is the aim of the Soviet authorities to replace noncontract work by contract work to the greatest extent feasible.

the launching of numerous reforms in 1968-69, the construction industry continued to be plagued with problems that interfered with the pursuit of efficiency: high labor turnover, shortages of some skills, shortages of certain construction materials, underutilization of construction equipment, jurisdictional disputes, revisions in plans, mismanagement in the delivery of supplies, and confusion arising from too many competing projects. It is likely that these factors contributed to the further decline in 1969 of the growth of construction activity, but since most of them are permanent to the scene in a greater or lesser degree, the major cause of the decline was probably the cutback in the number of start-up projects (the initial stages of new construction projects generally account for the most rapid increases in the volume of construction work).

8. Investment in equipment grew at an average annual rate of about 5½% in 1968-69 as compared to nearly 7% in 1966-67. The significant dropoff in growth to about 2½% in 1969 (see Table 1) is all the more striking in view of the emphasis that was placed on the completion and commissioning of major construction projects in 1969. A major investment item in such projects should certainly be the equipment that is installed in the final stages of construction. Apparently much of the equipment destined for installation did not get that far to judge by the sizeable increase in inventories of equipment (so-called "stocks of uninstalled equipment") at construction sites and industrial enterprises.^{1/} Between 1 January 1969 and 1 October 1969, these inventories increased from some

^{1/} Equipment that is designed to be installed in a building or structure does not get counted in fixed investment until the process of installation begins.

4 billion rubles to 5.5 billion rubles, including 1.9 billion rubles of equipment above norm.^{1/} It is not clear how much ^{of} this stock may have fixed entered into investment between 1 October and 31 December 1969,

but Soviet officials have indicated great concern over the fate of both the domestic and imported equipment at these sites.^{2/} It is likely that a great deal of the equipment in Soviet inventories remained uninstalled in 1969 because of lagging construction schedules. If so, the low growth of investment forced on the economy in 1969 should yield opportunities for rapid growth of investment in 1970 (see Para. 15, below).

9. Although complete information on investment by sector has not yet been reported for 1969, available evidence indicates that consumer-oriented investment continued to outpace producer-oriented investment during 1968-69, but by a somewhat smaller margin than in 1966-67 (see Tables 2-4).

10. The growth of producer-oriented investment is largely determined by the growth of its dominant component -- heavy industry. The small increase of investment in heavy industry in 1969 was apparently due to delays in the completion of work by the industrial construction

^{1/} The 1969 plan called for the drawing down of 1.4 billion rubles of uninstalled equipment.

^{2/} Above-norm stocks at construction sites of the Ministry of Ferrous Metallurgy and the Ministry of the Chemical Industry alone amounted to almost .5 billion rubles, or one-quarter of all the above-norm stocks in the economy as of 1 October 1969.

ministries.^{1/} These delays in turn prevented the carrying out of planned installation of equipment at a number of projects. During 1966-69, investment in the construction industry has been growing faster than planned in order to meet a number of contingencies, but the absolute volume of this investment is still relatively small and does not greatly affect the growth of producer-oriented investment. The transport and communications sector has experienced a low rate of growth in investment ever since 1965.

11. Much of the decline in growth of consumer-oriented investment in 1969 was due to mediocre performance in implementation of the agricultural investment program. Unlike industrial investment where most of the equipment component must be installed in buildings and structures, agricultural investment in equipment includes large quantities of mobile machinery which does not require installation and such investment is therefore independent of the agricultural construction program. The slowdown in growth of agricultural construction in 1969 ^{2/} may have been partly due to the adverse weather conditions in the early months of the year.

12. During 1968-69 the rate of growth of investment in housing grew somewhat more slowly than in 1966-67, even though the government

1/ For example the USSR Ministry of Industrial Construction and the USSR Ministry for Construction of Heavy-Industry Enterprises fulfilled their annual plans by only 94% and 96%, respectively.

2/ The USSR Ministry of Rural Construction -- the principal contracting organization for agricultural construction -- was scheduled to increase its volume of work by 14% but actually achieved only a 7% increase. One of its major problems was apparently the high labor turnover (almost 50%) which was ascribed in large part to the lack of housing for rural construction workers.

made special provisions for the diversion of funds from plant construction to housing construction. One of the factors contributing to this slow-down was ^Afurther decline in individual private housing construction.

The urban housing stock in 1969 continued to show a faster growth than the rural stock, as it has consistently done since 1960 (see the tabulation below).

The great growth of the urban population over the past decade has put heavy pressure on urban housing construction and contributed to a rise in the average cost of housing construction in the U.S.S.R. (due to the inclusion of such "amenities" as central heat, water, gas, sewers, and baths, as well as to the construction of taller apartment buildings requiring heavier foundations and frameworks). Thus the housing stock shows a more rapid growth when measured in rubles (constant prices) than in square meters of useful space.

U.S.S.R.: Average annual rates of growth of the housing stock,
1961-69

	Unit	1961-65	1966	1967	1968	1969 ^{1/}
Total housing stock	ruble value	5.8	4.8	5.2	5.2	<u>2/</u>
Total housing stock	square meter of useful space	3.8	3.2	3.4	3.0	3.0
Urban	do	5.3	4.2	4.7	4.4	4.4
Rural	do	2.2	1.9	1.8	1.4	1.2

^{1/} Estimated.

^{2/} Not available.

13. No comprehensive data on investment by branch of industry has been published for 1968-69. Based on fragmentary information that has appeared in the Soviet press, however, investment estimates are presented for several major branches in Table 5. In 1968 aggregate investment in the branches of heavy industry and in the branches of the consumer goods industries grew at approximately the same rate -- 8% (see Table 7). Present evidence indicates that within heavy industry investment in ferrous metallurgy and chemicals showed little or no growth but that investment in the fuels industry started to grow at an accelerated rate.

THE 1970 PLAN

14. The economic plan for 1970 -- the final year of the Eighth Five Year Plan -- calls for total investments of 76.5 billion rubles, including 54.4 billion rubles of centralized investment and 22.1 billion rubles of noncentralized investment (expressed in the new estimate cost prices of 1 January 1969). These investment goals represent planned increases of 7.6%, 7.8%, and 7.3%, respectively, over 1969.^{1/} The policy implication of these growth rates is that the tight controls applied to noncentralized investment in 1969 are being relaxed somewhat in 1970. Because faster growth of noncentralized investment is basic to the operation of the economic reform introduced in 1965 this provision of

^{1/} Because the Soviet preliminary estimate of investment in 1969 was 0.6 billion rubles higher than the figure subsequently announced, the adjusted percentage increase for total investment is 8.5%. Lacking information on where the shortfall occurred, it is not possible to adjust the centralized and noncentralized increases correspondingly.

the 1970 plan is consistent with what is in fact expected to happen.

At the same time, however, the regime is again limiting to 300 the number of major new industrial projects on which work is authorized to begin in 1970 and is again calling for a concentration of investment resources on important construction projects scheduled for early operation.

15. In view of the existence of large inventories of uninstalled equipment at the end of 1969 (see Para. 8 , above) it is not surprising that the 1970 plan envisages a much higher growth rate for ^{fixed} investment in the equipment component than in the construction component (about 11% and 7 $\frac{1}{2}$ %, respectively ^{1/}). Approximately 75% of the investment in equipment under the 1970 plan falls within centralized investment. In addition to these provisions the performance of the construction industry is to be bolstered by further innovations, including two-shift operation of construction machinery. The construction industry is shifting to the economic reform and construction organizations are to be reimbursed only upon completion of designated stages of work and not simply at regular intervals on the basis of work performed. Labor productivity in the construction industry is scheduled to increase by 6.3%.

16. The 1970 plan contains a considerable amount of information on investment in selected sectors of the economy (agriculture, housing)^{2/}

^{1/} Unadjusted to reflect the revision in 1969 investment reported subsequent to publication of the 1970 plan.

^{2/} See Table 2.

and in individual branches of industry (fuels, machine building, consumer goods, chemicals, pulp-and-paper, and metallurgy). Railroad transportation is also singled out for a large increase in investment. As usual, however, the percentage increases given or implied in the plan are not easily related to Soviet handbook data and are so large in some cases as to invite skepticism (see Note to Tables on Investment, below). A rundown of these data from the 1969 and 1970 plans is presented below.

Planned increases in investment announced for selected branches
of industry in the 1969 and 1970 plans
[in percent]

	<u>1969 plan</u>	<u>1970 plan</u>
Chemicals	<u>1</u> /	16.6
Consumer nondurables	26	24.3 ² /
Construction materials	10	<u>1</u> /
Construction and roadbuilding machinery	almost 100	<u>1</u> /
Fuels	<u>1</u> /	22 ² /
Machine tools and tools	44	more than 41
Machine building for light industry, the food industry and household appliances	<u>1</u> /	62
Metallurgy, ferrous and nonferrous	<u>1</u> /	6.5 ² /
Mineral fertilizers	55	<u>1</u> /
Motor vehicles	almost 100	<u>1</u> /
Tractor and agricultural machinery	<u>1</u> /	39
Pulp and paper	<u>1</u> /	12.5

1 Not available.

2 Designated as centralized investment only.

Note to Tables on Investment

Soviet reporting of statistics on gross fixed investment continues to be marked by extensive revision of previously published data (reported for selected years only) and numerous gaps in recent data. To these two drawbacks has been added the problem of trying to relate investment expenditures expressed in the new norms and estimate-cost prices of 1 January 1969 to the official handbook investment series expressed in the norms and estimate-cost prices of 1 July 1955.^{1/} An attempt has been made in this paper to "link" the two series together using conversion coefficients. The results, however, are of limited reliability because of incomplete information with respect to the correct conversion coefficient to be used for each category of investment. Conversion coefficients could be obtained directly from the Soviet investment data only for total investment in the economy and for investment in agriculture. For the other categories of investment, coefficients were taken as reported in collateral sources^{2/} and adjusted proportionally to fit into total investment.

The data for 1968 used in the tables were taken from the statistical handbook Narodnoye khozyaystvo SSSR v 1968 g. (Moscow, 1969). Later data

1/ It is not clear whether the investment series presented in the Soviet handbooks will continue to be reported in the old (1955) prices through 1970 (the end of the current five-year plan), whether the new series will simply be "linked" on to the old series through a common year (1968 or 1969), or whether an entirely revised investment series expressed in the new prices of 1 January 1969 will be calculated. Serious statistical distortions are apt to result in growth calculations unless one series is completely recalculated in the prices of the other.

2/ The principal sources for coefficients (based on the structure of centralized investment in 1967) were: Yefremov, S.A. et al., Novyye smetnyye normy i tseny v stroitel'stve, Moscow, 1969, and Ekonomika stroitel'stva, no 12, 1968.

for 1968 appearing in the journal of the Central Statistical Administration ^{1/}

indicate that some of the handbook data have been slightly revised.

Because these later data were incomplete and also were rounded, however, they could not be reconciled with the handbook data for the purpose of making a comprehensive revision. Consequently they were not used directly in the tables but only in support of the analytic interpretation of the handbook data.

Information on actual investment in 1969 has not yet been officially reported in any detail. Estimates for 1969 appearing in the tables below therefore are subject to a considerable range of error. For the individual branches of industry (Table 5) there was not sufficient information to permit even provisional estimates in most cases.

Another problem continues to be the data presented on planned investment in individual branches of industry (see Para. 16, above). The increases implied for total industrial investment do not appear capable of simultaneously absorbing increases of the size announced for various branches. Nor do subsequent investment statistics by branch of industry, when they finally appear in the statistical handbooks, bear out the kinds of increases announced in the plan. Consequently it can only be assumed that many of these increases apply to incomplete universes (e.g., centralized or ministerial investment only) and are offset by planned reductions in the

^{1/} Vestnik statistiki, no 2, 1970, pp. 92-93.

remainder of the universe. If true, this feature severely limits the analytic usefulness of planned investment data on branches of industry.

Table 1 -- U.S.S.R. Gross fixed investment by function, 1950, 1960, 1965-69, and 1970 plan ^{1/}

	In billions of rubles ^{2/}									
	1950	1960	1965	1966	1967	1968(A)	1968(B) ^{3/}	1969	1970 plan	
Total investment	10.9	35.9	48.7	452.3	56.7	61.3	67.8	70.5	76.5	
Construction ^{5/}	7.1	24.0	29.0	31.1	33.6	35.9	40.9	3/42.9	45.6	
Equipment	3.1	9.7	16.3	17.2	18.6	20.3	22.2	3/22.7	3/25.5	
Other capital outlays ^{6/}	0.7	2.2	3.4	4.1	4.5	5.1	4.7	3/4.9	3/5.4	

	Rates of growth						
	1951-60 ^{7/}	1961-65 ^{8/}	1966	1967	1968	1969	1970 plan ^{3/}
Total investment ^{9/}	12.7	6.3	7.4	8.3	8.1	4.0	8.5
Construction	13.0	3.9	7.2	8.0	6.8	3/4.9	6.3
Equipment	12.1	10.9	5.5	8.1	9.1	3/2.3	12.3
Other capital outlays	12.1	9.1	20.6	9.8	13.3	3/4.3	10.2

1. Based on Soviet investment data appearing in Narodnoye khozyaystvo SSSR v 1968 g., Pravda, 25 January 1970, and Vestnik statistiki, no. 2, 1970. Data on the 1970 plan are based on information appearing in Pravda, 17 December 1969, and Ekonomika stroitel'stva, no. 2, 1970. The ruble values for total investment have been rounded from unrounded data accurate to the nearest million rubles (see Table 2) in order to bring them into conformity with the rounded data on the functional components of investment.
2. Data for 1950-1968(A) are given in estimate prices of 1 July 1955 and data for 1968(B) - 1970 plan, in estimate prices of 1 January 1969.
3. Estimated.
4. Sum of the rounded components exceeds the rounded total.
5. Including assembly and installation work.
6. For surveys, plans and designs, technical documentation, and the like.
7. Average annual rate (1950 base).
8. Average annual rate (1960 base).
9. Computed from unrounded data in Table 2.

Table 2 -- U.S.S.R.: Gross fixed investment in consumer-oriented and producer-oriented sectors of the economy, 1950, 1960, 1965-69, and 1970 plan^{1/}

In millions of rubles ^{2/}							
	1950	1960	1965	1966	1967	1968(A)	1968(B) ^{3/} 1969 ^{3/} 1970 plan ^{3/}
Total investment	10,903	35,914	48,733	52,339	56,701	61,309	67,800
Consumer-oriented	5,598	20,737	27,195	30,033	32,858	35,669	39,300
Agriculture ^{2/}	4 1,560	4,891	8,574	9,385	10,014	11,225	12,600
Consumer goods industry ^{6/}	512	1,945	2,295	2,531	2,678	2,890	3,200
Housing	2,007	8,209	8,162	8,957	9,613	10,120	11,100
Services ^{5/}	4 1,519	5,692	8,164	9,160	10,523	11,434	12,400
Producer-oriented	5,305	15,177	21,538	22,306	23,843	25,640	28,500
Construction industry	287	1,021	1,312	1,547	1,785	2,040	2,300
Heavy industry ^{7/}	3,672	10,728	15,381	15,757	16,831	18,180	20,200
Transport and communications	1,346	3,428	4,845	5,002	5,227	5,420	6,000

¹ Based on Soviet investment data appearing in Narodnoye khozyaystvo SSSR v 1968 g., Pravda, 17 December 1969, and Pravda, 25 January 1970 (for the methodology used to link investment figures expressed in prices of 1 January 1969 to those expressed in prices of 1 July 1955, see Note to Tables on Investment). In this table (as well as in Tables 3 and 4) sectors of the economy have been classified as consumer-oriented or producer-oriented according to the disposition of the bulk of each sector's output (goods and services). Although such a division of investment is not quantitatively precise, it does provide an indication of official allocational policies in the short run, i.e., investment in sectors primarily benefiting consumers directly versus investment in sectors producing goods for future growth.

² Data for 1950-1968(A) are given in estimate prices of 1 July 1955, and data for 1968(B) - 1970 plan, in estimate prices of 1 January 1969.

³ The data in this column are rounded to the nearest hundred million rubles.

⁴ Estimated.

⁵ The figures in this series differ from those published in the JEC study Soviet Economic Performance: 1966-67 as a result of subsequent Soviet reclassification of investment in agricultural procurement facilities and forestry. Such investment is now excluded from agriculture and included in services.

⁶ Essentially the light and food industries, which are primarily engaged in producing consumer nondurable goods.

⁷ Includes investment in facilities producing durable consumer goods such as passenger cars, radios, television sets, refrigerators, and washing machines.

Table 3 -- U.S.S.R.: Indexes of gross fixed investment in consumer-oriented and producer-oriented sectors of the economy, 1950, 1960, 1965-69, and 1970 plan^{1/}

	[In percent (1960 = 100)]									
	1950	1960	1965	1966	1967	1968	1969 ^{2/}	1970 plan ^{2/}		
Total investment										
Consumer-oriented	30.4	100	135.7	145.7	157.9	170.7	178	193		
Agriculture	27.0	100	131.1	144.8	158.5	172.0	180	196		
Consumer goods industry	31.9	100	175.3	191.9	204.7	229.5	242	268		
Housing	26.3	100	118.0	130.1	137.7	148.6	158	196		
Services	24.4	100	99.4	109.1	117.5	123.3	131	138		
Producer-oriented	26.7	100	143.4	160.9	184.9	200.9	206	219		
Construction industry	35.0	100	141.9	147.0	157.1	168.9	174	187		
Heavy industry	28.1	100	128.5	151.5	174.8	199.8	217	261		
Transport and communications	34.2	100	143.4	146.9	156.9	169.5	173	185		
	39.3	100	141.3	145.9	152.5	158.1	163	174		

^{1/} Based on data in Table 2.

^{2/} Because of the estimative character of most of the underlying data, the index numbers in this column have been rounded to the nearest full percent.

Table 4 -- U.S.S.R.: Rates of growth of gross fixed investment in consumer-oriented and producer-oriented sectors of the economy, 1951-69 and 1970 plan ^{1/}

	[In percent]						
	1951-60 ^{2/}	1961-65 ^{3/}	1966	1967	1968	1969 ^{4/}	1970 plan ^{4/}
Total investment	12.7	6.3	7.4	8.3	8.1	4	9
Consumer-oriented	14.0	5.6	10.4	9.4	8.6	5	9
Agriculture	12.1	11.9	9.5	6.7	12.1	6	11
Consumer goods industry	14.3	3.4	10.3	5.8	7.9	6	24
Housing	15.1	-0.1	9.7	7.7	4.9	6	6
Services	14.1	7.5	12.2	14.9	8.7	2	6
Producer-oriented	11.1	7.3	3.6	6.9	7.5	3	8
Construction industry	13.5	5.1	17.9	15.4	14.3	9	20
Heavy industry	11.3	7.5	2.4	6.8	8.0	2	7
Transport and communications	9.8	7.2	3.2	4.5	3.7	3	6

1. Based on data in Table 2.

2. Average annual rate (1950 base).

3. Average annual rate (1960 base).

4. Because of the estimative character of most of the underlying data, the growth rates in this column have been rounded to the nearest full percent.

Table 5 -- U.S.S.R.: Gross fixed investment in industry, by branch, 1950, 1960, 1965-69, and 1970 plan¹/₂

[In millions of rubles] ^{2/}									
	1950	1960	1965	1966	1967	1968(A)	1968(B) ^{3/}	1969 ^{3/}	1970 plan ^{3/}
Industry, total	4,184	12,673	17,676	18,288	19,509	21,070	23,400	24,000	26,200
Heavy industry	3,672	10,728	15,381	15,757	16,831	18,180	20,200	20,600	22,000
Ferrous metallurgy	456	1,192	1,543	1,466	1,681	1,700 ^{3/}	1,900	2,000	2,200
Chemicals and petrochemicals	166	890	1,833	1,769	1,737	1,700 ^{3/}	1,900	1,900	2,200
Fuels and power	1,651	3,739	5,690	6,026	6,222	4,300 ^{3/}	4,900	4,400	4,600
Fuels	1,282	2,317	3,546	3,789	3,885	4,300 ^{3/}	4,900	5,400	6,600
Electric power	369	1,422	2,144	2,237	2,337	4,300 ^{3/}	4,900	4,400	4,600
Machine building	631	1,787	2,755	3,021	3,423	4,300 ^{3/}	4,900	4,400	4,600
Construction materials	128	997	866	911	975	4,300 ^{3/}	4,900	4,400	4,600
Timber, woodworking, and paper	229	710	967	922	965	4,300 ^{3/}	4,900	4,400	4,600
Others ^{5/}	411	1,413	1,727	1,642	1,828	4,300 ^{3/}	4,900	4,400	4,600
Consumer goods industry	512	1,945	2,295	2,531	2,678	2,890	3,200	3,400	4,200

^{1/} Based on Soviet investment data appearing in Narodnoye khoz-
yaistvo SSSR, 1968, p. 106.

¹ Based on Soviet investment data appearing in Narodnoye khozyaystvo SSSR v 1967 g. and subsequent fragmentary information appearing in Soviet collateral sources.

² Data for 1950-1968(A) are given in estimate prices of 1 July 1955 and data for 1968(B)-1970 plan, in estimate prices of 1 January 1969.

³ Estimated to nearest hundred million rubles.

⁴ Not available.

⁵ Believed to include the following branches: nonferrous metallurgy; peat and shale; abrasives; glass and porcelain.

Table 6 -- U.S.S.R.: Indexes of gross fixed investment in industry, by branch, 1950, 1960, 1965-69, and 1970 plan^{1/}

	[In percent (1960 = 100)]							
	1950	1960	1965	1966	1967	1968	1969 ^{2/}	1970 plan ^{2/}
Industry, total	33.0	100	139.5	144.3	153.9	166.3	171	186
Heavy industry	34.2	100	143.4	146.9	156.9	169.5	173	185
Ferrous metallurgy	38.3	100	129.4	123.0	141.0	143 ^{3/}	151	166
Chemicals and petrochemicals	18.7	100	206.0	198.8	195.2	191 ^{3/}	191	223
Fuels and power	44.2	100	152.2	161.2	166.4	4/	4/	4/
Fuels	55.3	100	153.0	163.5	167.7	186 ^{3/}	205	250
Electric power	25.9	100	150.8	157.3	164.3	4/	4/	4/
Machine building	35.3	100	154.2	169.1	191.6	4/	4/	4/
Construction materials	12.8	100	86.9	91.4	97.8	4/	4/	4/
Timber, woodworking, and paper	32.3	100	136.2	129.9	135.9	4/	4/	4/
Others	29.1	100	122.2	116.2	129.4	4/	4/	4/
Consumer goods industry	26.3	100	118.0	130.1	137.7	148.6	158	196

^{1/} Based on data in Table 5.

^{2/} Because of the estimative character of most of the underlying data, the index numbers in this column have been rounded to the nearest full percent.

^{3/} Estimated to the nearest full percent.

^{4/} Not available.

Table 7 -- U.S.S.R.: Rates of growth of gross fixed investment in industry, by branch, 1951-69 and 1970 plan^{1/}

	[In percent]					
	1951-60 ^{2/}	1961-65 ^{3/}	1966	1967	1968	1969 ^{4/} 1970 plan ^{4/}
Industry, total	11.7	6.9	3.5	6.7	8.0	9
Heavy industry	11.3	7.5	2.4	6.8	8.0	7
Ferrous metallurgy	10.1	5.3	-5.0	14.7	1 5/	10
Chemicals and petrochemicals	18.3	15.5	-3.5	-1.8	-2 5/	17
Fuels and power	8.5	8.8	5.9	3.3	6/ 5/	6/
Fuels	6.1	8.9	6.9	2.5	11 5/	22
Electric power	14.4	8.6	4.3	4.5	6/	6/
Machine building	11.0	9.0	9.7	13.3	6/	6/
Construction materials	22.8	-2.8	5.2	7.0	6/	6/
Timber, woodworking, and paper	12.0	6.4	-4.7	4.7	6/	6/
Others	13.1	4.1	-4.9	11.3	6/	6/
Consumer goods	14.3	3.4	10.3	5.8	7.9	24

1 Based on data in Table 5.

2 Average annual rate (1950 base).

3 Average annual rate (1960 base).

4 Because of the estimative character of most of the underlying data, the growth rates in this column have been rounded to the nearest full percent.

5 Estimated to the nearest full percent.

6 Not available.